



DEPARTMENT OF NATURAL RESOURCES

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April 29, 2002

Ms. Christine Todd Whitman
Office of Air and Radiation Docket and Information Center
U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

Attention: Docket No. A-96-56

Dear Governor Whitman:

This letter provides the Missouri Department of Natural Resources' official comment to the "Interstate Ozone Transport: Response to Court Decisions on the NO_x SIP Call, NO_x SIP Call Technical Amendments, and Section 126 Rules" Notice of Proposed Rulemaking published in the February 22, 2002, Federal Register.

In this rulemaking, the U.S. Environmental Protection Agency (EPA) references the flexibility that is being extended to the states in the control region. This flexibility will allow the states full discretion to choose the control requirements necessary to address the transported emissions identified by EPA in the State Implementation Plan (SIP) Call and meet the specified budgets. The department supports the effort to give the states control over their own compliance strategy. A "one size fits all" approach would not be the best strategy to achieve the necessary emission reductions in all states.

With this in mind, the department requests that Missouri's administrative rule 10 CSR 10-6.350 Emission Limitations and Emissions Trading of the Oxides of Nitrogen (NO_x) be accepted as Missouri's compliance strategy for the electric generating unit portion of the proposed rulemaking. This rule achieves sufficient emission reductions to meet the proposed budget numbers and imposes less financial burden of the State of Missouri than the proposed rulemaking. This rulemaking has been adopted by the Missouri Air Conservation Commission, submitted to the EPA, approved by the EPA, and incorporated into Missouri's SIP. This rule became effective on September 30, 2000, as a portion of Missouri's Code of State Regulations. The trading program outlined in the rule begins May 1, 2003. Reductions are already being recognized as a result of this rule and the early reduction credits that can be earned in the rule.

The Ozone Transport Assessment Group (OTAG) has previously recommended that a coarse-grid modeling evaluation should be accomplished along with additional analysis to determine the effect of differential control levels in different regions. The EPA has repeatedly stated in previous Notices of Rulemaking that ozone impact of upwind NO_x controls diminish with

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distance from a downwind area. Yet, the EPA has performed no analysis to determine the best “mix” of controls in different geographic areas to obtain the necessary ozone air quality benefits with the least cost. Missouri requests the EPA complete these analyses before the final rulemaking is published.

Missouri favors the creation of a NO_x trading program for compliance with the applicable NO_x budget. This program will allow for lower overall cost of control and give more flexibility to sources for control of specific units. However, the creation of one large trading region may defeat the purpose of regional control. NO_x reductions from some eastern states will not help St. Louis air quality.

Therefore, we propose the creation of trading zones with unlimited trading among sources within those zones and limited trading between zones. This will provide the necessary air quality benefits and minimize concerns over emissions shifting in the controlled area. However, we still have concerns regarding emissions shifting to uncontrolled areas and the effect of those emissions on upwind areas in Missouri. Missouri’s NO_x rule achieves the needed reductions in Missouri and the upwind areas that Missouri affects.

The OTAG process was based on the idea of upwind states contributing to downwind nonattainment areas. Missouri was said to contribute to the Chicago and Milwaukee nonattainment areas. It is our understanding that these areas are in the process of applying for reclassification to attainment. If that is indeed true and these areas are no longer nonattainment areas for ozone, then there is no need for Missouri to be included in this proposed rulemaking.

Many states and other interested parties have discussed the concept of a phased approach for control of NO_x emissions. This type of approach would allow time for additional nonattainment area and subregional modeling analysis, as recommended by OTAG. Also, it would provide substantial emission reductions and corresponding air quality benefits to nonattainment areas. Based on the department’s cost-benefit analysis, we recommend a 0.25 lb/mmBtu NO_x emission limit on Missouri utility boilers in the “fine-grid” and a 0.35 lb/mmBtu NO_x emission limit on Missouri utility boilers in the western 2/3 of the state for the initial compliance. The final phase recommendation would be determined by subsequent analysis.

As new multi-pollutant strategies are on the horizon, such as the Clear Skies Initiative, it is apparent that new control levels will be introduced for further reductions. Therefore, we believe it is sensible to phase in control for the entire state at this time. Missouri’s NO_x trading rule, 10 CSR 10-6.350, is a significant step in that direction. The state as a whole will be more prepared to meet new emission limits like the ones in the Clear Skies Initiative.

Additionally, once a budget is set for a specific state, it should be that state’s responsibility to allocate those emissions to its sources. This will allow facility-specific information to be fully implemented in the allocation decision and promote consistency between utility and non-utility

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allocations. There are several more technical concerns with the proposed rulemaking, these issues are addressed in the enclosed technical comment package, Appendix A and B.

The proposed rulemaking sets a date of April 1, 2003, for a final date that Missouri would be required to submit a suitable SIP to comply with the final rulemaking. We believe that this date is not reflective of EPA's current policy to allow at least twelve (12) months for a state to develop, finalize, and submit a SIP. We request that this date be extended in the final rulemaking. As a result of this date being extended, we would also request that the final compliance date also be extended to reflect the change in the SIP submittal date. In the original NOx SIP call, states were allowed 1,309 days after SIP submittal for the implementation of their SIPs. The states that were included of Phase I of the SIP call were required to submit their SIPs on October 30, 2000, with an implementation date of May 31, 2004. This compliance schedule gave the states approximately 1,309 days. Missouri requests that the same timeframe be allowed for the Phase II states.

Missouri asks to be treated equitably and fairly in this matter. Our goal is, and has been, to provide the necessary NOx reductions to achieve the air quality standards in our metropolitan areas and areas downwind at the least cost. Thank you for the opportunity to comment on this very important matter.

Sincerely,

DEPARTMENT OF NATURAL RESOURCES

Original signed by Stephen Mahfood

Stephen Mahfood
Director

SM:kdI

Enclosures

Appendix A.

Emission Inventory Comments for the Phase II NO_x SIP Call

During the past month, discussions have been held with Mr. Greg Stella of the Environmental Protection Agency (EPA), Emission Factor and Inventory Group to determine the methodologies used to generate the budget included in the March 2002 proposed rulemaking to address NO_x transport in the eastern United States (Appendix B). During these discussions and based on our review, the state of Missouri has determined there are several inconsistencies and errors with the 2007 NO_x budgets proposed for the eastern one-third of Missouri.

First, at some point during the development process, the EPA changed the non-electric generating unit (NEGUs) growth factors to ensure consistency among points at the same facilities. We support that change and, since we developed our previous emission budgets based on EPA growth factors, we have revised our budget calculations to reflect the new factors. This causes only a small change in the total NO_x budget for the eastern one-third of Missouri.

The EPA changed the 1995 daily and 2007 daily/seasonal emission inventories for three facilities without notification to the state of Missouri. Natural Gas Pipeline Co. (29-017-0019), Continental Cement Co. (29-173-0001), and Texas Eastern Transmission Corp. (29-201-0099) emission calculations were changed by EPA to reflect higher emission numbers in the base and budget inventories. This change may be appropriate, but we have not been able to verify the specific request.

The single biggest change from the department's February 22, 1999, comment letter to the EPA proposed budget is related to a misunderstanding of the comments provided by the Missouri Department of Natural Resources. According to Greg Stella, EPA took comment only on the 1995/96 year inventory during the previous comment periods. However, following the EPA format, the department only provided daily NO_x emissions for the 1995/96 timeframe for the NEGUs. Apparently, EPA did not use the 2007 daily and seasonal NO_x emission tonnages provided by the department in the development of their budgets for the proposed rulemaking. This was discovered when the budget for NEGUs points was found to be approximately 3000 tons per ozone season overestimated in the EPA calculations. The calculation to obtain pre-control 2007 tons per ozone season from 1995 tons per day can be accomplished with three pieces of information: (1) the 1995 emissions, (2) the growth factor for the emission source, and (3) the number of days per ozone season. In large degree, the 1995 daily emissions match from the Missouri comments and the EPA budget calculation. Another comment will address that issue. The growth factors have already been discussed in a previous comment. Therefore, the difference was related to the number of days per season in the calculation. The February 22, 1999, comment letter specifically details the approach for determining the appropriate daily and seasonal tonnages for each emission point. For large sources, seasonal and daily emission levels were calculated from survey data collected by the department. Other sources used seasonal (summer) throughput to determine the daily and seasonal emissions or assumed a continuous yearly operation (153 days during the ozone season). EPA disregarded the approach used by Missouri that resulted in the appropriate 2007 seasonal budgets and used only the 153 days/ozone season conversion factor.

This decision caused the overestimation given above. We assumed EPA would use the revised 2007 daily and seasonal emission numbers in the budget development process and not perform another set of calculations (that proved incorrect). We would ask that EPA revisit the calculation of the base year (1995) and budget emissions to correct this discrepancy. The appropriate “number of days per ozone season” can be calculated by dividing the 2007 ozone season base emissions by the 2007 daily ozone season emissions.

There are several facilities listed in the “controlled” portion of the SIP call inventory that should not be controlled. In the NEGU inventory, Doe Run – Buick Resource Recovery Center (29-093-0009-036) contains emissions from the blast furnace combustion and is not an industrial boiler and should not be in the controlled inventory. Also, River Cement (29-099-0002-094) is a raw mill furnace and is not an industrial boiler and should not be included in the controlled inventory. In addition, the DePaul Health Center (29-189-1029-002) has one emission point that is not correct in the EPA 1995 emission data. The EPA table reports 2.1876 TPD NO_x in 1995. The actual emission rate reported by Missouri was 0.0060 TPD. It is interesting to note the other emission point (001) matches the 1995 data submitted by Missouri. Also, this emission point was erroneously controlled as a large internal combustion engine. This is incorrect and EPA should make this change to the inventory contained in the proposed rulemaking. Another problem is the lack of a control efficiency associated with one of the cement kiln operations in the eastern one-third of Missouri. Lone Star Industries (29-031-0021) operates a cement kiln (emission point 048) that should have been included in the controlled portion of the inventory along with the other eastern Missouri cement kilns. This oversight should be corrected and the budget revised to account for this error.

The most difficult issue to address is the inclusion or exclusion of sources from the electric generating unit (EGU) and NEGU inventories. The EPA transferred some internal combustion engines used to generate electricity for some small municipalities from Missouri EGU inventory to the NEGU inventory. The emission rates for the vast majority of the points involved in this transfer do not match the Missouri emissions. Some of the facilities had points in both the EGU (internal combustion engines) and NEGU inventories (space heaters, storage tanks, etc.). Since none of the facilities have any emission points that would be subject to control, the inventory in which they are placed is likely of little consequence. However, these units are used to produce electricity and the logical inventory for inclusion would be the EGU inventory. We ask EPA to provide a written justification for the change in a response to comments. This will provide less confusion upon development of the State Implementation Plan for ozone transport by Missouri. The facilities included in this transfer were:

Poplar Bluff Municipal (29-023-0050)
Jackson Municipal (29-031-2137)
Kahoka (29-045-2138)
Malden Municipal (29-069-0034)
Campbell (29-069-2118)
Owensville (29-073-2149)
Palmyra Municipal (29-127-2150) or (29-127-0053)
Palmyra Municipal 2 (29-127-7304)
Laclede Gas (29-510-2378)

The information provided in the EPA inventory for these sources does not match the submitted information in the February 22, 1999, comments. The following table provides a summary of the emission rates highlighting the differences between Missouri's inventory and the EPA proposed budget for these EGU sources.

Plant / Point ID	EPA 1995 (TPD)	Missouri 1995 (TPD)	EPA 2007 (TPOS)	Missouri 2007 (TPOS)
Poplar Bluff Municipal				
29-023-0050-004	0.0546	0.1580	8.3525	8.6088
29-023-0050-005	0.0000	0.1580	0.0000	8.6088
Jackson Municipal				
29-031-2137-001	0.0000	0.0000	0.0000	0.0000
29-031-2137-002	0.0099	0.0072	1.5159	1.1990
29-031-2137-003	0.0084	0.0061	1.2817	1.0137
29-031-2137-004	0.0068	0.0050	1.0474	0.8284
29-031-2137-005	0.0000	0.0000	0.0000	0.0000
29-031-2137-006	0.0000	0.0000	0.0000	0.0000
29-031-2137-007	0.0313	0.0228	4.7959	3.7932
29-031-2137-008	0.0268	0.0194	4.0930	3.2373
29-031-2137-009	0.0938	0.0603	14.3454	10.0608
Kahoka				
29-045-2138-003	0.0000	0.0000	0.0000	0.0000
29-045-2138-006	0.0000	0.0414	0.0000	2.8400
29-045-2138-007	0.0000	0.0561	0.0000	3.8504
29-045-2138-008	0.0000	0.2837	0.0000	19.4833
29-045-2138-009	0.0307	0.2616	4.7034	17.9611
Malden Municipal				
29-069-0034-001	0.0009	0.0006	0.1392	0.0929
29-069-0034-002	0.0125	0.0125	1.9152	2.0875
Campbell				
29-069-2118-002	0.0044	0.0152	0.6703	0.5302
29-069-2118-003	0.0021	0.0074	0.3263	0.2573
29-069-2118-004	0.0009	0.0032	0.1420	0.1123
29-069-2118-005	0.0099	0.0345	1.5192	1.2028
29-069-2118-006	0.0095	0.0329	1.4531	1.1490
29-069-2118-007	0.0126	0.0436	1.9228	1.5210
Owensville				
29-073-2149-4A	0.0430	0.0927	6.5848	12.0284
29-073-2149-005	Not included	0.0927	Not included	12.0284
Laclede Gas				
29-510-2378-001 A	Not included	0.1126	Not included	16.1953
29-510-2378-001 B	Not included	0.1126	Not included	16.1953
29-510-2378-001 C	Not included	0.1722	Not included	24.7712
29-510-2378-001 D	Not included	0.1722	Not included	24.7712

29-510-2378-001 E	Not included	0.1722	Not included	24.7712
29-510-2378-001 F	Not included	0.1722	Not included	24.7712
Palmyra Municipal				
29-127-0053-IC3*	Not included	0.1108	Not included	3.0191
29-127-0053-IC5*	Not included	0.0999	Not included	2.7235
29-127-0053-IC6	Not included	0.0113	Not included	0.3075
29-127-0053-IC11	Not included	0.0109	Not included	0.2957
29-127-0053-IC12	Not included	0.0045	Not included	0.1216
29-127-2150-IC7	0.0599	0.1148	9.1716	6.2593
29-127-2150-IC8	0.0599	0.0176	9.1716	0.9593
Palmyra Municipal 2				
29-127-7304-IC9	0.1168	0.0607	17.8729	3.3096
29-127-7304-IC10	0.1168	0.0303	17.8729	1.6491

BOLD indicates matching emission rates

*Location 1

When sources have not been included under the EPA inventory, this means that they were not included in either the EGU or NEGU inventories and were not included in the budget calculation. The Laclede Gas facility (the Missouri ID 29-510-2378-001A) is specifically troubling because of the size of the emissions that were omitted. This facility, as well as others in this group, had emission points in the EGU inventory (I/C engines) and the NEGU inventory (space heaters, other boilers, etc.). Therefore, the data in both inventories is needed to correctly characterize the emissions from this facility. The Palmyra power plant (the Missouri ID 29-127-0053) has two locations for the engines in the inventory. The two largest engines operate at the “new” location and are identified as IC3 and IC5. The remaining engines operate at the other location. This does not match the EPA provided ID (presumably ORIS ID) and five of the nine engines reported were not included in the budget calculation including IC3 and IC5.

Specifically, the department is asking EPA to provide documentation about these changes, explain the differences, and subsequently make the necessary changes as appropriate to the EGU and NEGU inventories.

In addition to these requested changes, these I/C engines were not grown to 2007 from 1995. A growth factor of 1 was applied for these years. This is inconsistent with both the EGU and NEGU inventories. The EPA applied growth rate for utilities was 9 percent during this time frame. The EPA applied growth rate for several of the facilities in this list for NEGU points was 13percent Therefore, no growth for these engines is inconsistent with the other points in the inventory.

The EPA-provided EGU inventory is also in error. Three units named in the inventory are controlled to the level of 0.15 lb/MMBTU and should be in the uncontrolled portion of the inventory. Based on the original SIP call for Missouri, there is a 25 TPOS exemption for EGUs when those EGUs are attached to a 25 MW generator. The three units in question are Ameren Viaduct (29-031-2096-001), Howard Bend CT (29-189-2102-1), and Meramec 5 (29-189-2104-005). These units will emit less than 25 TPOS based on EPA projections of the 1995/96 inventories. In addition, all units would be required to take a 25 ton per ozone season permit

limit to qualify for this exemption. Therefore, the department requests EPA use the 1995 emission rate (lb/MMBTU) for the calculation of the budget and not 0.15 lb/MMBTU.

The final issue with the inventory could be a simple clarification. The mobile source inventory developed by EPA has no vehicle miles traveled (VMT) or emissions for St. Louis City (29-510). Upon inspection of the inventory for St. Louis County (29-189), it appears likely that the VMT and emissions from St. Louis City are contained under the St. Louis County identifier. If this is the case, this is not a major concern. However, if the VMT and emissions from St. Louis City have been omitted, then a revision would need to be made to the budget. The Missouri Department of Natural Resources requests EPA to respond with a clarification to this issue.

If EPA does not have a mechanism to change the SIP call budgets or inventory at this point, we would like EPA to hold these comments and make the appropriate changes at the next available opportunity. In addition, these changes should be incorporated into any modeling effort undertaken by EPA to address the “coarse grid” states and portions of states. Specifically, all Missouri sources should be revisited using the same methodology that was done for the eastern third sources and detailed in these comments.

Please see the attached EPA correspondence pertaining to these inventory issues. Appendix B. is email correspondence between the EPA and the Missouri Department of Natural Resources in an effort to reach an understanding on these issues.

Appendix B.

E-mail

I wanted to follow up on our discussion of this morning to confirm that we both understand the issues that Missouri still has with the EPA emission budget for the NOx SIP Call. As a reminder, EPA has no plans, nor a mechanism, for which we will modify any State's emission inventories or budgets based on comments outside of those to be submitted during your SIP process to the Regional office. To request any modification to these data, please do so at the time you submit your SIP to the Region and provide backup material to justify your modification requests.

1. Seasonal Emission Variation

As we determined, due to the fact that 1995 summer season emissions were not provided with the State's original SIP Call comment, EPA estimated the summer season emissions by multiplying the provided 1995 summer day emissions by 153. This differs from the method that the State would have liked EPA to estimate these seasonal emissions and used in its own 2007 base and budget estimation of summer season emissions. I agree that if these temporal data or 1995 seasonal emission estimates were provided with the original comment, EPA would have utilized them to estimate or as the 1995 seasonal emissions. However, as there was no mention of these (or in using the 2007 ratios) to estimate seasonal emissions, we proceeded as indicated. As you point out, using MO's temporal factors, emissions in both the 2007 base case and budget cases would be lower than published in the final Federal Register notice.

2. Lone Star Industries (29-031-0021)

It appears that the point id [048] at this facility was inadvertently left off the list of sources to be controlled under the SIP Call program. This unit appears to be a cement manufacturing preheater/precalciner kiln which would require additional reduction from 2007 uncontrolled emission levels.

3. DePaul Health Center (29-189-1029)

I am unable to determine why unit [002] at this facility differs from that submitted by the State. The only thing I can think of is that this particular IC engine was moved from the EGU to the non-EGU sector based on EPA review of the two data sets. The State should follow up with comments specific to this source and may ask emissions to be changed in the budgets.

4. Doe Run - Buick Resource Recovery Center (29-093-0009-036) and River Cement (29-099-0002-094)

You have indicated that the identified units at these facilities had miscoded SCCs which identified them as industrial coke-fired external combustion boilers and therefore made them subject to additional SIP Call controls. The State should follow up with comments specific to these sources and may ask them to be removed from the budgets.

Gregory Stella
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